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TENTATIVE WASTE DISCHARGE REQUIREMENTS ORDER R5-2020-XXXX



Order Information

Program	Title 27
Discharger:	Yuba County Department of Public Works and United States Department of Interior, Bureau of Land Management
Facility:	Ponderosa Landfill
Address:	17219 Ponderosa Way, Brownsville
County:	Yuba County
WDID:	5A580301001
Prior Order(s):	R5-2004-0059

I, PATRICK PULUPA, Executive Officer, hereby certify that the following is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on XX April 2020.

PATRICK PULUPA
Executive Officer



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WDRS R5-2020-
YUBA COUNTY DEPARTMENT OF PUBLIC WORKS AND BLM
PONDEROSA LANDFILL
YUBA COUNTY
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GLOSSARY

ADC.....	Alternative Daily Cover
Antidegradation Policy.....	<i>Statement of Policy with Respect to Maintaining High Quality Waters in California</i> , State Water Board Resolution 68-16
Basin Plan	Water Quality Control Plan for the Sacramento River Basin and San Joaquin River Basin
bgs	Below Ground Surface
BOD	Biological Oxygen Demand
BPTC.....	Best Practicable Treatment and Control
BLM.....	U.S. Department of Interior, Bureau of Land Management
C&D.....	Construction and Demotion Materials
CalRecycle	California Department of Resources Recovery and Recycling
CAP.....	Corrective Action Program
CAMP.....	Corrective Action Monitoring Program
CEQA	California Environmental Quality Act
CEQA Guidelines	California Code of Regulations, Title 14, section 15000 et seq.
C.F.R.....	Code of Federal Regulations
COCs	Constituents of Concern
C-Soil	Contaminated Soil
CQA	Construction Quality Assurance
DEIR.....	Draft Environmental Impact Report
DMP	Detection Monitoring Program
DTSC	California Department of Toxic Substances Control
DWR.....	California Department of Water Resources

EC	Electrical Conductivity
EIR	Environmental Impact Report
EMP	Evaluation Monitoring Plan
FCPMP	<u>Final</u> Closure and Post-Closure Maintenance Plan
FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Management Agency
GCL	Geosynthetic Clay Liner
HDPE	High-Density Polyethylene
JTD	Joint Technical Document
LCRS	Leachate Collection and Removal System
LEA	Local Enforcement Agency
LFG	Landfill Gas
MCE	Maximum Credible Earthquake
MDB&M	Mount Diablo Base and Meridian
MDL	Method Detection Limit
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter
MPE	Maximum Probable Earthquake
msl	Mean Sea Level
MRP	Monitoring and Reporting Program
MSW	Municipal Solid Waste
MSWLF	Municipal Solid Waste Landfill
MW	Monitoring Well

Order	Central Valley Water Board Order which adopts Waste Discharge Requirements for the Facility
PCPMP	<u>Preliminary</u> Closure and Post-Closure Maintenance Plan
SPRRs	Standard Provisions and Reporting Requirements
Subtitle D.....	USEPA-promulgated MSW regulations under RCRA (see 40 C.F.R. part 258)
RCRA	Resource Conservation and Recovery Act
ROWD	Report of Waste Discharge
TDS	Total Dissolved Solids
Title 22	California Code of Regulations, <u>Title 22</u>
Title 23	California Code of Regulations, <u>Title 23</u>
Title 27	California Code of Regulations, <u>Title 27</u>
USEPA.....	United States Environmental Protection Agency
VOCs.....	Volatile Organic Compounds
WDRs.....	Waste Discharge Requirements
WMU	Waste Management Unit
WQPS	Water Quality Protection Standard

FINDINGS

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) hereby finds as follows:

Introduction

1. The Yuba County Department of Public Works, (Discharger) owns the closed Ponderosa Landfill (Facility), which is located at 17219 Ponderosa Way, approximately one mile southwest of the unincorporated town of Brownsville in Yuba County, Section 34, Township 19 North, Range 6 East, Mount Diablo Base and Meridian (MDB&M). The Facility's location is depicted on the Site Location Map in **Attachment A**.
2. The Facility is comprised of Yuba County Assessor's Parcel Number (APN) as shown below and in **Attachment D**:

Table 1—Facility Parcel Number (APN)

APN	Landowner
50-200-035	Landowner: United States Bureau of Land Management (BLM)

3. The 16-acre Facility is on 40-acre public lands parcel leased from the United States Department of Interior, Bureau of Land Management (BLM), Central California District. Yuba County Department of Public Works, as the closed Facility's owner, and BLM as the landowner are each jointly responsible for compliance with this Order. A map of the predevelopment topography is shown in **Attachment B**.
4. The 16-acre Facility includes two unlined landfill waste management units (WMUs or Unit), a borrow area, a sedimentation basin, drainage facilities, access roads, and a transfer station, as shown in **Attachment C**. The Ponderosa Transfer Station is currently owned operated by Recology Yuba-Sutter, Inc. and is not regulated under this Order. The Ponderosa Transfer Station is regulated by the County of Yuba Environmental Health Department as the Local Enforcement Agency.

5. This Order encompasses the post-closure maintenance and corrective action associated with the following closed WMUs at the Facility as shown in **Attachment C**:

Table 2—Units Permitted Under this Order

WMU	Unit Type	Classification	Size	Unit Status
LF-1	Landfill	Class III ¹ , Non-hazardous municipal solid waste	3-acres	Closed in 1995
LF-2	Landfill	Class III ¹ , Non-hazardous municipal waste	5-acres	Closed in 1995

Materials Accompanying this Order

6. The following materials are attached to this Order, and incorporated herein:

Attachment A Site Location Map

Attachment B Predevelopment Topography Map

Attachment C Existing Facility Map

Attachment D Existing Water Supply Well Map

Attachment E Existing Facility Water Quality Monitoring Points Map

Attachment F Existing Final Cover and Stormwater Drainage Plan

**Standard Provisions and Reporting Requirements (SPRRs),
December 2015 Edition**

Information Sheet

7. Attached and incorporated as part of this Order is the separately-issued **Monitoring and Reporting Program R5-2020-** (MRP), which sets forth the approved Water Quality Protection Standard (WQPS). (Title 27, § 20390 et seq.) Compliance with the operative MRP (including subsequent amendments) is required under this Order.
8. Additional information set forth in the attached **Information Sheet** is incorporated herein as part of these findings.

¹ Please see Findings (10-19) for further information regarding Class III WMU designation

9. On 19 August 2019, the Discharger submitted an updated Report of Waste Discharge (ROWD) for the Facility. Information in the ROWD, the Discharger's periodic self-monitoring reports (SMRs), and the Facility's historical file was used in the revision of this Order.

Waste and Unit Classification

10. The landfill units include Landfill 1 (LF- 1), a 3-acre WMU in the northern part of the site, and Landfill 2 (LF-2), a 5-acre WMU in the southern part of the site. LF-1 operated as a trench-fill burn dump from 1967 to 1973 and may have subsequently accepted municipal solid waste (MSW) for a period of time concurrent with LF-2. LF-2 operated from 1973 to 1992, accepting primarily MSW, demolition debris and tires.
11. Both WMUs are "existing" Units in accordance with Title 27 section 20080(d) because they operated prior to the effective date of Chapter 15 regulations (27 November 1984). Furthermore, LF-1 was an inactive unit under Section 20080(g) because it ceased accepting wastes prior to 27 November 1984.
12. The landfills accepted wastes defined as "inert" and "nonhazardous" under Sections 20230 and 20220 of Title 27, respectively. Septage and other liquid wastes were not accepted at this Facility.
13. The Facility accepted approximately 5.5 tons (40 cubic yards) per day of waste and it is estimated that approximately 110,000 in-place cubic yards of waste have been discharged to the Facility. The average thickness of waste in the landfill is estimated to be about 11 feet.
14. The Facility ceased accepting wastes in 1992 upon construction and startup of an onsite transfer station. All municipal refuse has since been transported to the Ostrom Road Landfill in Marysville. Both landfills (LF-1 and LF-2) were closed with a low permeability clay cover in December 1995.
15. On 9 October 1991, the United States Environmental Protection Agency (USEPA) promulgated regulations (Title 40, Code of Federal Regulations, Parts 257 and 258, "federal municipal solid waste (MSW) regulations" or "Subtitle D") that apply, in California, to dischargers who own or operate Class II or Class III landfill units at which MSW is discharged. The majority of the federal MSW regulations became effective on the "Federal Deadline", which is 9 October 1993. The landfill is subject to all federal Subtitle D regulations because it accepted MSW and does not qualify for any available exemptions. The landfill does not qualify for the limited exemption applicable to facilities that ceased accepting wastes prior to 9 October 1993 (40 CFR 258.1(d)) because it did not close within the following six-month period as required for the exemption. The landfill also

does not qualify for the small landfill exemption (40 CFR 258(f)(1)) because there is evidence of groundwater impact from the unit.

16. Effective 18 July 1997, the water quality regulations for Class II and Class III disposal facilities formerly contained in Chapter 15, Title 23, California Code of Regulations (CCR), and the solid waste regulations formerly in Title 14, CCR, were consolidated into Chapters 1 through 7, Subdivision 1, Division 2, Title 27, CCR (Title 27). These WDRs implement Title 27 regulations.
17. The Facility's municipal solid waste (MSW) landfill units are subject to federal regulations promulgated under the Resource Consideration Recovery Act (RCRA), 42 U.S.C. section 6901 et seq. Typically referred to as "Subtitle D," these MSW regulations are now codified as 40 C.F.R. part 258, and implemented in part through the provisions California Code of Regulations, title 27 (Title 27) and in accordance with State Water Resources Control Board (State Water Board) Resolution 93-62.
18. Given that both unlined units were closed in December 1995 with Title 27-compliant final covers in accordance with Title 27, section 21090(a), their final covers now constitute their principle containment feature per Title 27, section 20950(a)(2)(A)(1) which states, in part: *"Closure — for landfills . . . and surface impoundments closed as landfills, the goal of closure, including but not limited to the installation of a final cover, is to minimize the infiltration of water into the waste, thereby minimizing the production of leachate and gas. For such Units, after closure, the final cover constitutes the Unit's principal waste containment feature...."* Also **see Finding 47**. Therefore, these WDRs continue the Class III designation for each unit which are set forth above in **Table 2** so long as the final closure covers installed over WMUs LF-1 and LF-2 meet the prescriptive standard for final closure covers in accordance with Title 27, section 21090(a) and the performance standard for final closure covers in accordance with 20950(a)(2)(A)(1).

Site Characteristics

General Information

19. The 16-acre Facility is situated on a 40-acre property comprised of Yuba County the Assessor's Parcel Number (APN) listed in Table 1. The address associated with the Facility is 17219 Ponderosa Way, Brownsville, California 95919 at approximately Latitude 39.465820° and Longitude -121.289880°.
20. Land within 1000 feet of the facility is designated as open forest. The Daken Flat area, approximately 2000 feet southwest of the site, contains residential and commercial developments.

21. There are 43 domestic, industrial and agricultural supply wells within one mile of the Facility. The locations of these wells are mapped in **Attachment D**.
22. Most residences in the landfill vicinity are connected to the public water system operated by the Yuba County Water District. Approximately 43 private wells are within a one-mile radius of the site, ranging in depth from 40 and 400 feet. At least two of these wells are known to be within 2,000 feet down gradient of the landfill.
23. The site receives an average of 66 inches per year of precipitation as determined from Rainfall Depth Duration Frequency data provided by the California Department of Water Resources (DWR) for the Challenge Ranger Station near Brownsville. The wettest year with a return period of 100 years (100-year annual wet season) is estimated to be 116 inches of precipitation. The estimated mean Class A pan evaporation rate is 55 inches per year.
24. WMUs must be constructed to accommodate stormwater runoff from 24-hour precipitation events with a return period of 100 years for Class III WMUs. (See Title 27, § 20320.) According to data collected at the DWR Challenge Ranger Station, the Facility's 100-year 24-hour rainfall event is estimated to result in 11 inches of precipitation.
25. A stormwater sedimentation basin is situated in the southeast portion of the Facility, as depicted in **Attachment F**. Usually dry during summer months, this stormwater basin will discharge to Dry Creek, a tributary of the Yuba River. The Discharger is not required to maintain Storm Water Pollution Prevention Plan and Monitoring Program and Reporting Requirements in accordance with State Water Resources Control Board's Statewide General Permit for Storm Water Discharges Associated with Industrial Activities, Order 2014-0057-DWQ since the Facility is a closed landfill e.g., no longer accepts waste and all existing waste is covered with a final closure cover.
26. According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map, available online at <https://msc.fema.gov/portal>, the Facility is not located within a 100-year floodplain.

Geology and Hydrogeology

27. The site is in the west-sloping foothills belt of the Sierra Nevada Mountains. Surface elevations range between 2,380 feet MSL northwest of LF-1 to 2,220 feet MSL southwest of Landfill Unit 2 near the sedimentation basin.
28. The region is structurally and stratigraphically complex and is underlain by sedimentary, igneous, and metamorphic rocks of late Paleozoic to Mesozoic age. Landfills at this site are underlain by deeply weathered, fractured, and sheared

intrusive rocks. The majority of the soils on-site have been excavated and used for cover material. Where present, soils consist of relatively thin moderate plasticity clays with intermittent clasts of heavily weathered bedrock.

29. The uppermost aquifer occurs in the weathered bedrock at elevations of approximately 2275 feet MSL along the northern perimeter of LF-1 and approximately 2200 feet MSL along the southern perimeter of LF-2, with a seasonal variation of about plus or minus two feet. The depth to groundwater ranges from about 45 feet MSL (western side of LF-2) to 130 feet MSL (eastern side of LF-1) depending primarily on the surface topography.
30. The groundwater gradient is approximately 0.1 ft/ft to the southwest at LF-1 and approximately 0.07 ft/ft to the south, southwest and southeast at LF-2. The direction of flow at LF-2 may be influenced by bedrock topography.

Seismology

31. There are no known Holocene faults within 1000 feet of the facility. The closest active faults are the Foothills Fault Zone, approximately 15 miles southwest of the site, and the New Melones Fault zone, approximately 20 miles east of the site. The maximum credible bedrock acceleration for the region is 0.2g.

Groundwater and Surface Water Conditions

32. The occurrence and movement of groundwater is restricted to fractured intervals in the bedrock beneath the site. The uppermost aquifer occurs in the weathered bedrock at elevations of approximately 2275 feet MSL along the northern perimeter of LF-1 and approximately 2200 feet MSL along the southern perimeter of LF-2. The depth to groundwater ranges from approximately 30 feet (southeastern side of LF-2) to approximately 150 feet (western side of LF-1) depending primarily on the surface topography.
33. Routine monitoring has shown that the groundwater elevations can vary both seasonally within a year and significantly over the long term. Over the last ten years of quarterly monitoring, groundwater elevation measurements have fluctuated by as much as 20 feet within individual wells.
34. A groundwater contour map based on recent May 2019 piezometric elevations indicated that the groundwater gradient is approximately 0.1 in the vicinity of LF-1 and approximately 0.07 in the vicinity of LF-2. Routine monitoring has demonstrated that the gradients do not change significantly.
35. Groundwater flow direction varies depending upon site location. In the LF-1 area, groundwater flow beneath the site is to the southwest. In the LF-2 area, the general groundwater flow direction is to the south, with the eastern side flowing

slightly more to the southeast. The direction of groundwater flow has not been observed to change significantly from season to season.

Groundwater Separation

36. Per Title 27, existing WMUs must “be operated to ensure that wastes will be a minimum of five feet (5 ft.) above the highest anticipated elevation of underlying ground water.” (Title 27, § 20240, subd. (c).)

Monitoring Networks

Groundwater Monitoring Program

37. The Facility’s **groundwater** monitoring network consists of the following monitoring wells (existing and proposed) as shown in **Attachment E**:

Table 3—Groundwater Monitoring Well Network

Well	Program	Monitored Unit	Water-Bearing Zone	Status
MW-1	Detection, Corrective Action	LF-2	N/A	Operational
MW-2	Detection	LF-2	N/A	Operational
MW-3	Detection, Corrective Action	LF-1	N/A	Operational
MW-4	Detection, Corrective Action	LF-1	N/A	Operational
MW-5	Background	LF-1, LF-2	N/A	Operational
MW-6	Detection	LF-2	N/A	Operational
MW-7	Detection	LF-2	N/A	Operational
MW-8	Detection, Corrective Action	LF-1	N/A	Operational

38. MRP Order R5-2004-0059 identifies MW-3 as an upgradient background monitoring well for determining water quality protection standards for downgradient landfill Unit LF-2. However, WDRs Order 93-117 Finding 27 and historical groundwater monitoring has shown that monitoring well MW-3 water quality is impacted by a release from upgradient landfill Unit LF-1. Therefore, it is inappropriate to use MW-3 water quality characteristic in determining background water quality at the facility prior to placement of waste in landfill Units LF-1 and LF-2. These WDRs in Section H. Provisions require the Discharger to establish water quality protection standards that comply with Title 27 section 20390.

Unsaturated Zone Monitoring Program

39. Due to the site geology where the landfill Units are underlain by deeply weathered, fractured, and sheared intrusive rocks, the Facility currently does not have an unsaturated zone monitoring program associated with landfill Units. Furthermore, the closed landfill units do not have a landfill gas extraction system

within the closed Units. As such, there is currently no unsaturated zone monitoring program at the facility.

Surface Water Monitoring Program

40. The closed landfill currently does not have a surface water monitoring program per Title 27 section 20415(c) which is necessary to determine if leachate from exposed waste and/or leachate seeps from the landfill Units through the final closure covers have entered surface water and could potentially leave the facility boundaries. Furthermore, the closed Facility is currently not monitoring surface water discharges under a National Pollutant Discharge Elimination System (NPDES) Industrial Stormwater Permit. These WDRs in Section H. Provisions require the Discharger to establish surface water monitoring in the sedimentation basin located downgradient of LF-1 and LF-2 as shown in Attachment F.
41. The Facility's **surface water** monitoring network consists of the following monitoring points (existing and proposed):

Table 4—Surface Water Monitoring Network

Monitoring Point	Location	Program	Monitored Unit	Status
SB1-INF	Influent into Sedimentation Basin	Detection	LF-1 and LF-2	Planned
SB1-EFF	Effluent from Sedimentation Basin	Detection	LF-1 and LF-2	Planned

42. As of the adoption of this Order, the above-described network does not comply with the monitoring requirements of Title 27. (See Title 27, §§ 20415–20435.)

Water Quality Impacts / Corrective Action

43. Both landfill waste management units 1 and 2 were closed in 1995 with a low hydraulic conductivity earthen cover. Title 27 section 20950(a)(2)(A)(1) states that “the goal of closure, including but not limited to the installation of a final cover, is to minimize the infiltration of water into the waste, thereby minimizing the production of leachate and gas. For such Units, after closure, the final cover constitutes the Unit’s principal waste containment feature.” Also, Title 27 section 20950(a)(2)(A)(2) states that “the goal of post-closure maintenance at such Units is to assure that the Unit continues to comply with the performance standard of P (a)(2)(A)1. until such time as the waste in the Unit no longer constitutes a potential threat to water quality.” Title 27 section 20365 specifies the requirements for precipitation and drainage controls at Class III landfills. The

Discharger must maintain the Ponderosa Landfill during the postclosure maintenance period to comply with Title 27 regulations above.

44. Historical groundwater monitoring results compared with annual precipitation data indicates the following
- a. At MW-3 background monitoring well, concentrations of chloride, sulfate, bicarbonate, and magnesium increase with increased annual precipitation. MW-3 may be affected by landfill Unit 1 and therefore not a suitable upgradient background well for determining water quality protection standards for downgradient landfill Unit 2;
 - b. There is an increasing trend of concentrations of chloride and bicarbonate in monitoring well MW-1. Magnesium concentrations in monitoring well MW-1 is significantly higher than that of other monitoring wells;
 - c. Sulfate concentrations in monitoring well MW-8 is significantly higher than that of other monitoring wells; and
 - d. The total number of volatile organic compound (VOC) detections and total magnitude of VOC concentrations in groundwater monitoring wells in relation to historic annual precipitation at Ponderosa Landfill appears stable. It appears the total magnitude of VOC concentrations has remained below 13 ug/L over the past ten years. Also, it appears there is a correlation between the number of VOC detections in groundwater monitoring wells MW-1, MW-4, and MW-8 and the annual precipitation received at the landfill. If stormwater ponding occurs on top of the final closure covers due to differential settlement, and as a result, ponded liquid which breaks through the low hydraulic conductivity cover and enters the underlying waste it will increase the production of leachate and landfill gas within the waste mass.
45. Water quality in groundwater monitoring wells MW-1, MW-3, MW-4, and MW-8 appears to be impacted due to waste constituents in LF-1 and LF-2. The impacts may be associated with degradation of the final closure covers over the closed landfill Units. These WDRs in Section H. Provisions require the Discharger to conduct an investigation to determine whether the final closure covers continue meet the performance standard for closure covers found in Title 27 section 20950(a)(2)(A)(1).

Unit Closure

46. In December 1995 both landfill Units LF-1 and LF-2 were closed in accordance with a Final Closure and Post-Closure Maintenance Plan (FCPMP) dated September 1993. The final closure cover consisted of the following from bottom to top:

- a. Foundation Layer – Two feet of compacted soil
- b. Low Hydraulic Conductivity Layer – one foot of compacted clay (hydraulic conductivity $k < 1 \times 10^{-6}$ cm/sec)
- c. Erosion Resistant Layer – One foot of clean vegetative cover soil
- d. Vegetative Cover – native grass mix

The final closure cover construction over landfill Units LF-1 and LF-2 complied with the Title 27-compliant final cover requirements in accordance with Title 27, section 21090(a) when they were initially constructed.

Post-Closure Maintenance

47. The Discharger's Final Closure and Post-Closure Maintenance Plan (FCPMP) provides for post-closure maintenance of landfill Units LF-1 and LF-2 for the entire post-closure maintenance period of at least 30 years, and until it is demonstrated that the Facility no longer poses a threat to the public health and safety and the environment. (See Title 27, §§ 20950(a)(1), 21180(a).) The FCPMP includes the following components:
- a. Inspection and maintenance of final cover(s), drainage feature(s), and all groundwater monitoring points.
 - b. Workplans for inspection, maintenance and monitoring during the post-closure maintenance period.
48. On 14 January 2020, Central Valley Water Board staff, as part of the process for revising the WDRs performed an inspection of the Facility and found that the facility has experienced severe erosion of its drainage structures used to convey stormwater at the facility. These WDRs in Section H. Provisions require the Discharger to submit a work plan using design standards specified in Title 27 section 20365 which addresses excessive erosion of drainage controls and structures.

Financial Assurances

49. The Discharger's FCPMP included costs estimates for:
- a. **Closure** (Title 27, §§ 21820, 22206);
 - b. **Post-Closure Maintenance** (§§ 22210–22212); and
 - c. **Corrective Action** for foreseeable releases (§§ 22220–22222).
50. Final closure of the landfill Units has been completed. Therefore, as of the date of this Order, the Discharger's cost estimates, calculated in accordance with Title 27, are as follows:

Table 5—Current Cost Estimates (Financial Assurances)

Requirement	Estimated Cost
Post-Closure Maintenance	\$ 1,820,665
Non-Water Corrective Action	\$ 222,617

51. This Order requires the Discharger to maintain financial assurances with CalRecycle in at least the Estimated Cost amounts specified above.
52. As of the date of this Order, the post-closure maintenance fund and corrective action fund balances are financially assured using a pledged revenue mechanism for at least the amounts shown in Finding 49. The current amounts are as follows:

Table 6—Current Pledged Revenues (Financial Assurances)

Requirement	Current Balance
Post-Closure Maintenance	\$ 1,820,665
Corrective Action	\$ 222,617

California Environmental Quality Act

53. The issuance of this Order, which prescribes requirements and monitoring of waste discharges at an **existing facility**, with negligible or no expansion of its existing use, is exempt from the procedural requirements of the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., pursuant to California Code of Regulations, title 14, section 15301 (CEQA Guidelines). The discharges authorized under this Order are substantially within parameters established under prior WDRs, particularly with respect to character and volume of discharges.

Other Regulatory Matters

54. This Order is issued in part pursuant to Water Code section 13263, subdivision (a), which provides as follows:

The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge..., with relation to the conditions existing in the disposal area ... into which, the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that

purpose, other waste discharges, the need to prevent nuisance, and the provisions of [Water Code] Section 13241.

55. This Order implements the Central Valley Water Board's *Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan)*, which designates beneficial uses for surface water and groundwater and establishes water quality objectives (WQOs) necessary to preserve such beneficial uses. (See Wat. Code, § 13241 et seq.)
56. The nearest surface waters are South Honcut Creek approximately one mile west of the site and Dry Creek approximately two miles downstream of the site to the southeast. South Honcut Creek is tributary to the Feather River and Dry Creek is tributary to the Yuba River.
57. The site is at the apex of a surface water divide. Runoff from the west side of the site flows west toward South Honcut Creek, while storm water discharges from the landfill area (including sedimentation basin) flow southwest toward Dry Creek downstream of the site.
58. According to the operative *Basin Plan*, designated beneficial uses of the nearest surface water, **South Honcut Creek**, a tributary of the Feather River, and **Dry Creek**, a tributary to the Yuba River include: agricultural supply (AGR); water contact recreation (REC-1); non-water contact recreation (REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD); migration of aquatic organisms (MIGR); spawning, reproduction and/or early development (SPAWN); and wildlife habitat (WILD). An additional beneficial use of the Feather River is municipal and domestic water supply (MUN). Also, an additional beneficial use of the Yuba River is hydroelectric power generation (POW).
59. Per the operative *Basin Plan*, designated **beneficial uses of groundwater** at the Facility include: municipal and domestic water supply (MUN); agricultural supply (AGR); industrial service supply (IND), and industrial process supply (PRO).
60. The State Water Resources Control Board's *Statement of Policy with Respect to Maintaining High Quality Waters in California*, Resolution 68-16 (*Antidegradation Policy*) prohibits the Central Valley Water Board from authorizing degradation of "high quality waters" unless it is shown that such degradation: (1) will be consistent with the maximum benefit to the people of California; (2) will not unreasonably affect beneficial uses, or otherwise result in water quality less than as prescribed in applicable policies; and (3) is minimized through the discharger's best practicable treatment or control.
61. Consistent with Title 27, this Order requires the Discharger to maintain the Facility, e.g., the final closure cover and drainage and erosion controls, etc., so as to contain waste within WMUs, thereby preventing degradation of water

quality. To the extent that there are releases from Facility WMUs, Discharger will be required to address such releases through a Corrective Action Program. (See Title 27, §§ 20385, 20415, 20430.) Accordingly, this Order complies with the *Antidegradation Policy*.

62. For the purposes of California Code of Regulations, title 23 (Title 23), section 2200, the Facility has a threat-complexity rating of **2-C**, where:
 - a. Threat Category “2” reflects waste discharges that can impair receiving water beneficial uses, cause short-term water quality objective violations, cause secondary drinking water standard violations, and cause nuisances; and
 - b. Complexity Category “C” reflects any discharger for which WDRs have been prescribed per Water Code section 13263, and not included in Category A or Category B.
63. This Order is also issued in part pursuant to Water Code section 13267, subdivision (b)(1), which provides that:

[T]he regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region ... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.
64. The technical reports required under this Order, as well as those required under the separately-issued MRP, are necessary to ensure compliance with prescribed WDRs and the provisions of Title 27, Subtitle D (40 C.F.R. part 258) and State Water Board Resolution 93-62. Additionally, the burdens associated with such reports are reasonable relative to the need for their submission.

Procedural Matters

65. All local agencies with regulatory jurisdiction over land-use, solid waste disposal, air pollution and public health protection have approved the use of the Facility’s site for the discharge of waste to land as provided for herein.
66. The Discharger, interested agencies and interested persons were notified of the Central Valley Water Board’s intent to prescribe the WDRs in this Order, and

provided an opportunity to submit their written views and recommendations at a public hearing. (Wat. Code, § 13167.5; Title 27, § 21730.)

67. At a public meeting, the Central Valley Water Board heard and considered all comments pertaining to the discharges regulated under this Order.
68. The Central Valley Water Board will review and revise the WDRs in this Order as necessary.

TENTATIVE ORDER REQUIREMENTS

IT IS HEREBY ORDERED, pursuant to Water Code sections 13263 and 13267, that WDRs Order R5-2004-0059 is hereby rescinded (except for enforcement purposes), and that the Dischargers and their agents, employees and successors shall comply with the following.

A. Discharge Prohibitions—Except as otherwise expressly directed below, the Discharger shall comply with all **Standard Prohibitions** (SPRRs, § C), which are incorporated herein, as well as the following Discharge Prohibitions.

1. The discharge of new or additional waste to the landfills at this facility is prohibited.
2. The discharge of solid or liquid waste or leachate to surface waters, surface water drainage courses, or groundwater is prohibited.
3. The discharge of treated or untreated wastewater or groundwater to any surface water or any surface water drainage course is prohibited without a National Pollutant Discharge Elimination System (NPDES) permit authorizing the discharge.
4. The landfills at this site shall not cause pollution or a nuisance, as defined by the California Water Code, Section 13050, shall not cause degradation of any water supply.

B. Discharge Specifications—Except as otherwise expressly directed below, the Discharger shall comply with all Standard Discharge Specifications (SPRRs, § D), which are incorporated herein, as well as the following.

1. Storm water runoff from the facility shall be monitored in accordance with Monitoring and Reporting Program Order R5-2020-XXXX and applicable storm water regulations.
2. A minimum separation of five feet shall be maintained between wastes or leachate and the highest anticipated elevation of underlying groundwater per Section 20240(c) of Title 27.

- C. Facility Specifications**—The Discharger shall comply with all **Standard Facility Specifications** (SPRRs, § E) which are incorporated herein.
- D. Unit Construction**—Except as otherwise expressly directed below, the Discharger shall comply with all *Standard Construction Specifications* and *Standard Storm Water Provisions* (SPRRs, §§ D, L), which are incorporated herein.
- E. Post-Closure Maintenance**—Except as otherwise directed below, the Discharger shall comply with all *Standard Closure and Post-Closure Specifications* (SPRRs, § G) and closure-related *Standard Construction Specifications* (SPRRs, § F), as well as the following with respect to closure of landfills at the Facility.
1. After final cover installation, the Discharger may perform minor modifications to problematic areas of the final cover, provided that:
 - a. The barrier layer of the final cover (e.g., geomembrane, GCL and/or compacted clay layer) remains intact; and
 - b. The Central Valley Water Board approves of such modifications.
 2. The Discharger shall apply sufficient seed, binder and nutrients to the vegetative/erosion-resistant layer to establish the vegetation proposed in the final closure plan. The Discharger shall also install any necessary erosion and sedimentation controls to protect vegetation while it is being established.
- F. Financial Assurances**—Except as otherwise directed below, the Discharger shall comply with all *Standard Financial Assurance Provisions* (SPRRs, § H), as well as the following:
1. The Discharger shall maintain with CalRecycle assurances of financial responsibility for the Estimate Cost amounts specified for each category in **Finding 51**, adjusted annually for inflation.
 2. A report regarding financial assurances, or a copy of the financial assurances report submitted to CalRecycle, shall be submitted to the Central Valley Water Board **annually**, no later than **1 June**.
 3. If CalRecycle determines that the Discharger's financial assurances for the Facility are inadequate, the Discharger shall, within 90 days of such determination:

- a. Obtain a new financial assurance mechanism for the amount specified by CalRecycle; and
 - b. Submit a report documenting such financial assurances to CalRecycle and the Central Valley Water Board.
4. The Discharger's PCPMP shall include all components required per Title 27, section 21769, subdivision (c), and include a lump sum cost estimate for:
 - a. Completion of all actions required for closure of each Facility WMU;
 - b. Preparation of detailed design specifications;
 - c. Development of a Final Closure and Post-Closure Maintenance Plan (FCPMP); and
 - d. Undertaking at least 30 years of post-closure maintenance.
5. Whenever changed conditions increase the estimated post-closure maintenance, the Discharger shall promptly submit an updated FCPMP to the Central Valley Water Board, CalRecycle and the LEA.

G. Monitoring Requirements—Except as otherwise directed below, the Discharger shall comply with all applicable *Standard Monitoring Specifications* (SPRRs, § I) and *Standard Response to Release Specifications* (SPRRs, § J), as well as the following:

1. The Discharger shall comply with all provisions of the separately issued **MRP R5-2020-XXXX** and any subsequent revisions thereto.
2. The Discharger shall comply with the **Water Quality Protection Standard** (WQPS) set forth in the operative MRP (see also Title 27, § 20390); and shall verify the compliance of each WMU with each subsequent monitoring event.
3. For all WMUs, the Discharger shall implement a groundwater, surface water and unsaturated zone detection monitoring program (DMP) in accordance with Title 27, sections 20385, 20415 and 20420.
4. For each WMU subject to corrective action, the Discharger shall implement a corrective action program (CAP) in accordance with Title 27, sections 20385, 20415 and 20430, and Section I of the SPRRs.

5. Constituents of concern (COC) in water passing through each WMU's Point of Compliance² shall not exceed concentration limits specified in the operative MRP.

H. Provisions

Task	Compliance Date
1. Establish Water Quality Protection Standards (WQPS) for LF-2. The Discharger shall submit a technical report for review and approval that establishes WQPS using background water quality characteristics that have not been affected by a release of leachate and/or landfill gas from upgradient LF-1.	1 September 2020
2. Establishment of Surface Water Monitoring in Downgradient Sedimentation Basin. The Discharger shall submit a work plan for review and approval that proposes surface water monitoring points at the influent and effluent of the downgradient sedimentation basin shown in Attachment F in order to determine if waste from potential leachate seeps from the closed landfills is entering surface waters and potentially leaving the facility boundary .	1 June 2020
3. Investigate Performance of Final Closure Covers. The Discharger shall submit a work plan for review and approval that investigates the condition of the and closure covers and whether they continue meet the performance standard for closure covers found in Title 27 section 20950(a)(2)(A)(1). The work plan shall include a schedule dictating when the investigation will be completed and when a final report will be submitted which details the findings.	1 July 2020
4. Repair and Maintenance of Drainage Structures. The Discharger shall submit a work plan including a schedule for completion of repairs for review and approval which addresses excessive erosion of drainage structures used to convey stormwater at the facility. The work plan shall	1 October 2020

² The Point of Compliance is a vertical plane situated at the hydraulically downgradient limit of each WMU, extending through the uppermost underlying aquifer. (See Title 27, §§ 20164, 20405.)

use the design standards specified in Title 27 section 20365.	
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If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. The State Water Board must receive the petition by 5:00 p.m. on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions are available on the Internet (at the address below), and will be provided upon request.

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

This Order is effective as of the date below.

Ordered By:

PATRICK PULUPA
Executive Officer
Central Valley Water Board

DATE

Order Attachments

Attachment A— Site Location Map

Attachment B— Predevelopment Topography Map

Attachment C— Existing Facility Map

Attachment D— Existing Water Supply Well Map

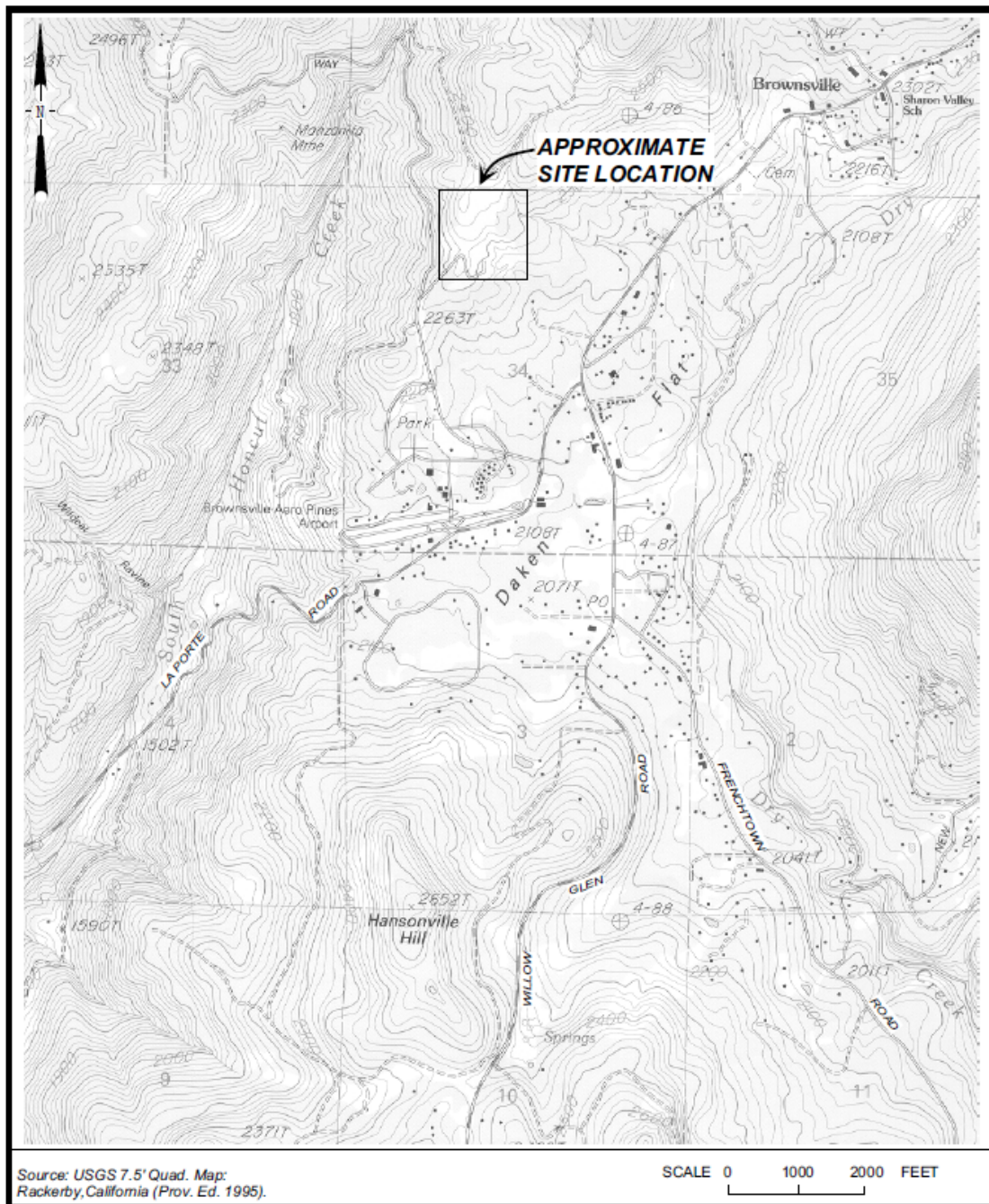
Attachment E— Existing Facility Water Quality Monitoring Points Map

Attachment F— Existing Final Cover and Stormwater Drainage Plan

Monitoring and Reporting Program

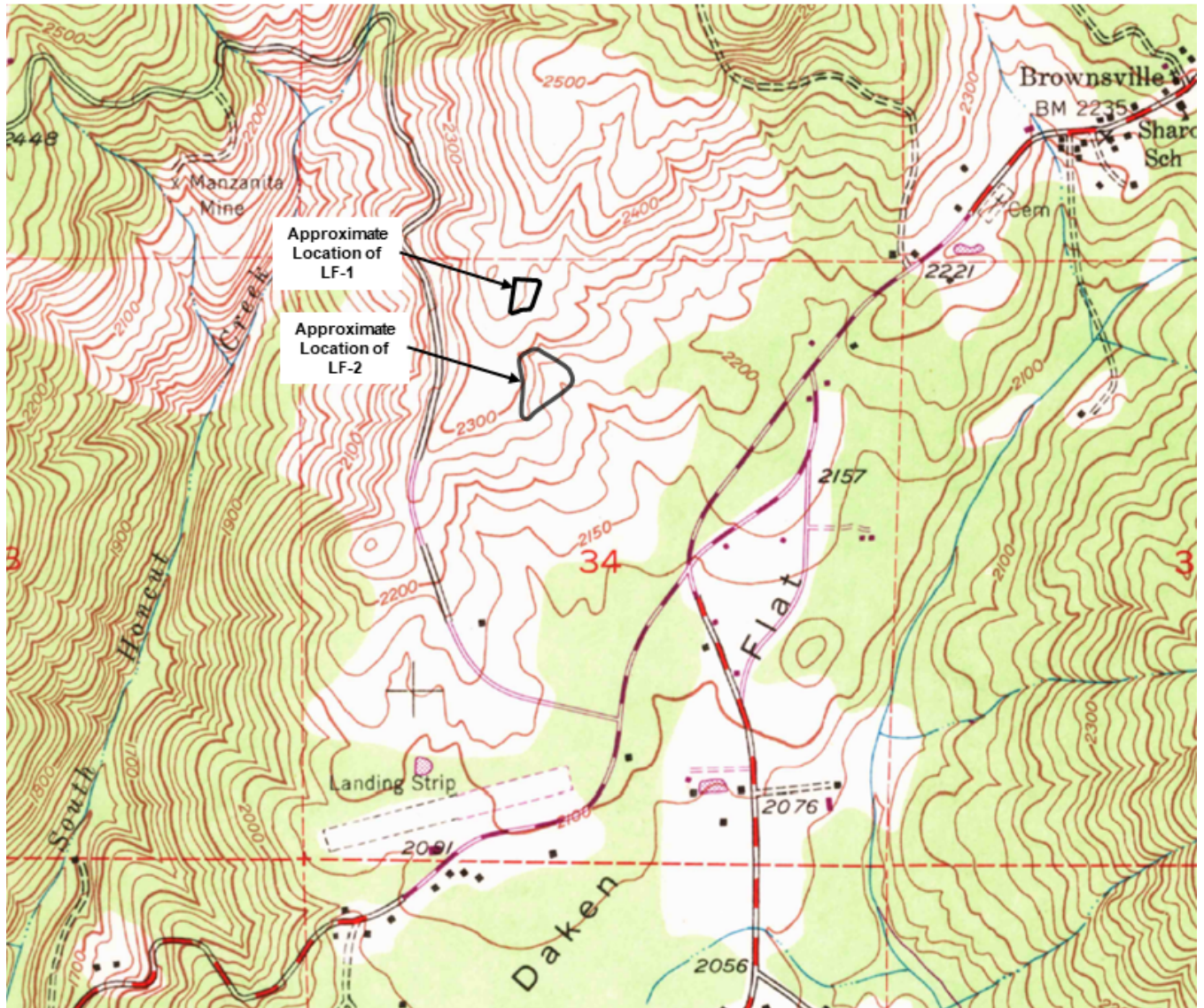
Information Sheet

ATTACHMENT A—SITE LOCATION MAP

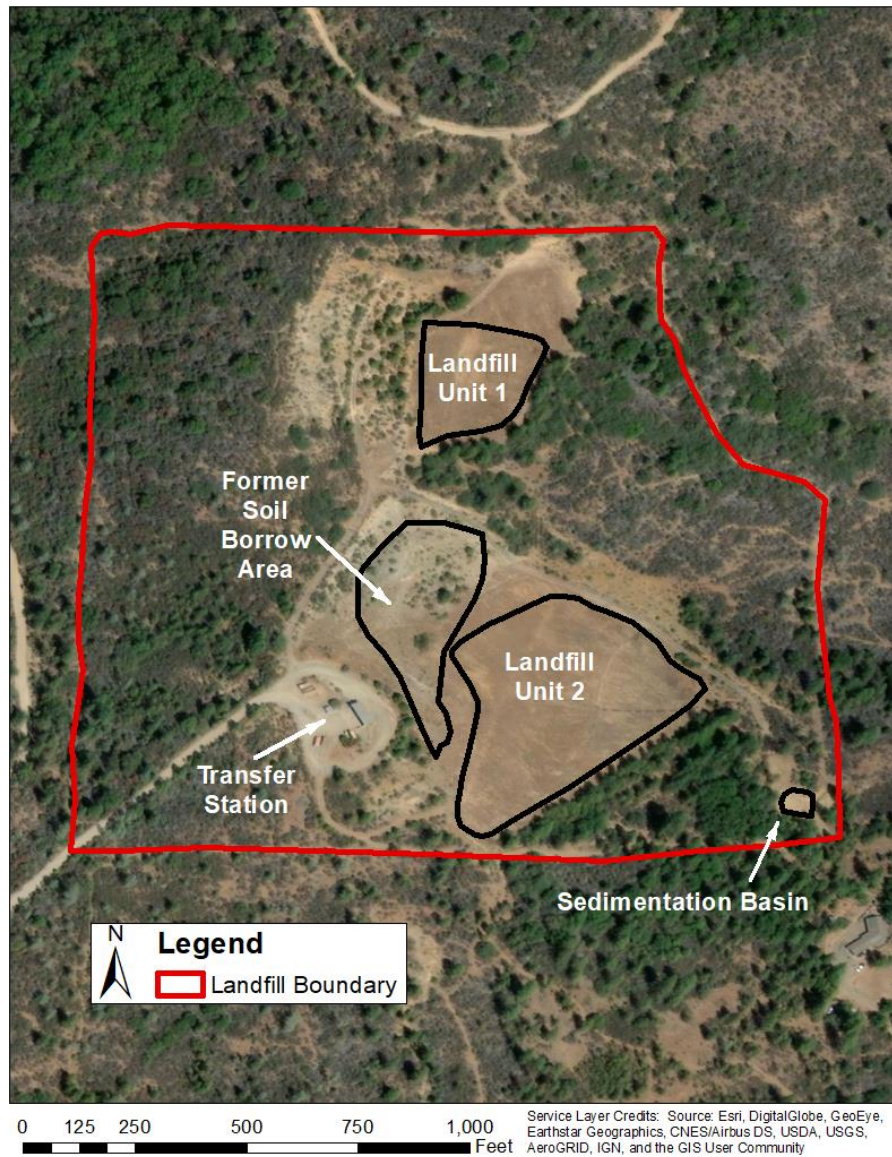


Source: Discharger's 2019 1st Semiannual Self-Monitoring Report

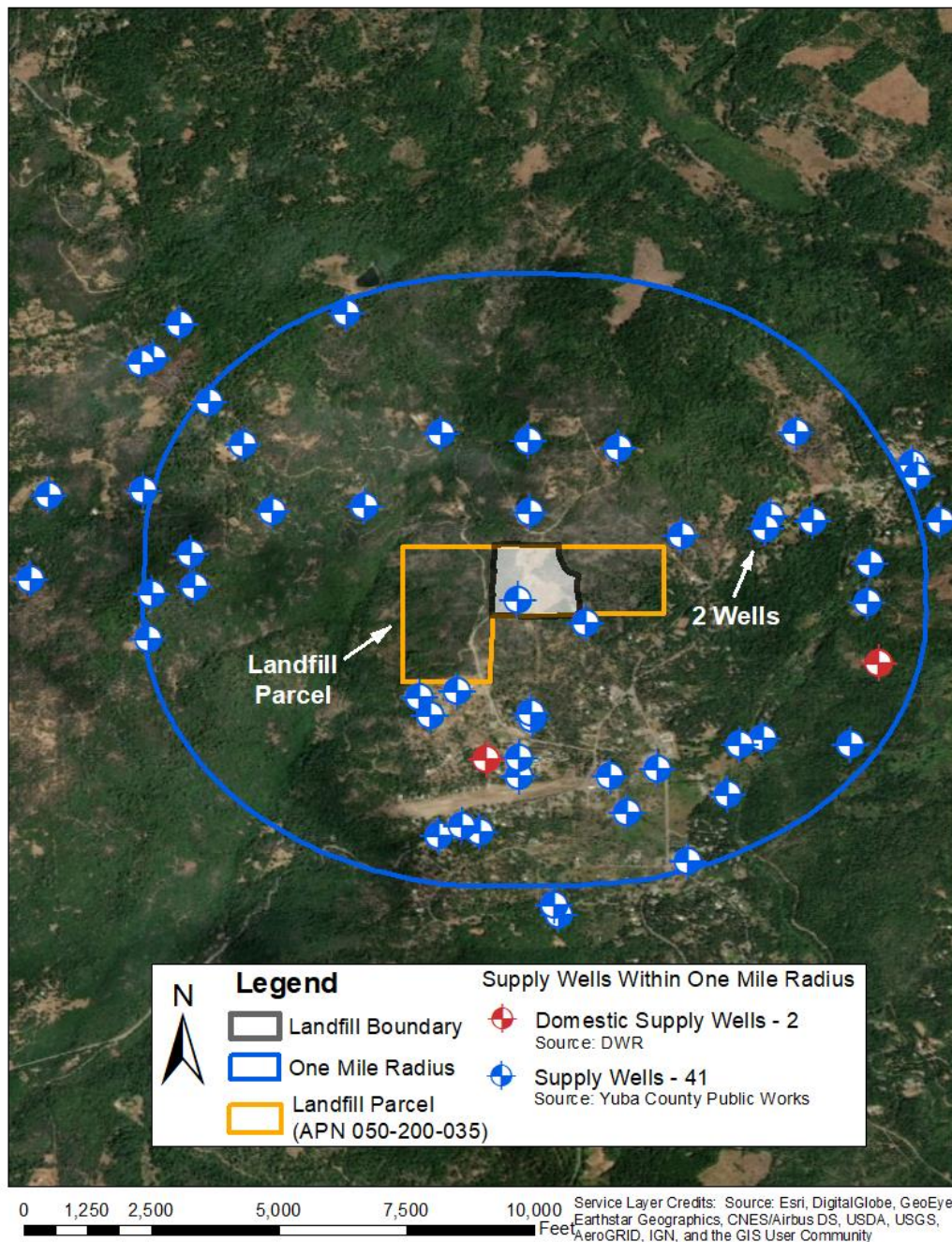
ATTACHMENT B—PREDEVELOPMENT TOPOGRAPHY MAP



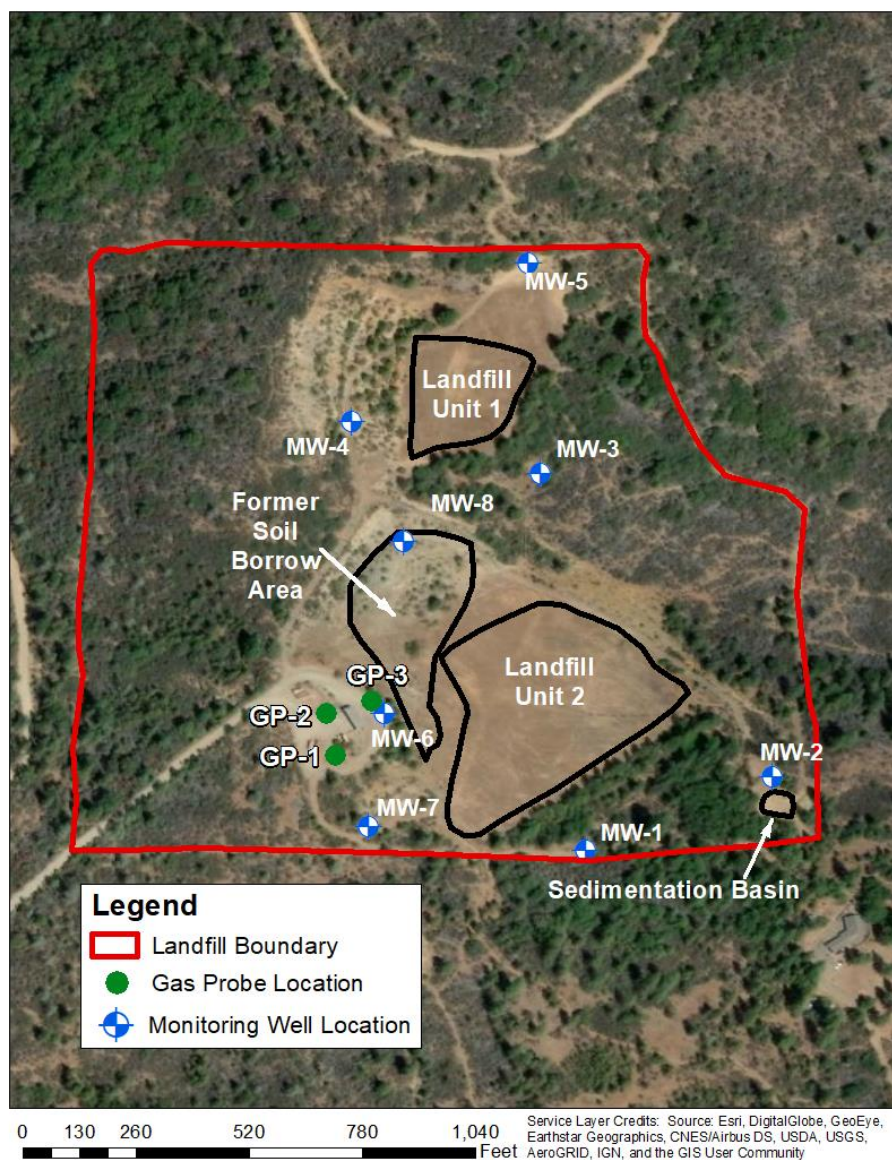
ATTACHMENT C—EXISTING FACILITY MAP



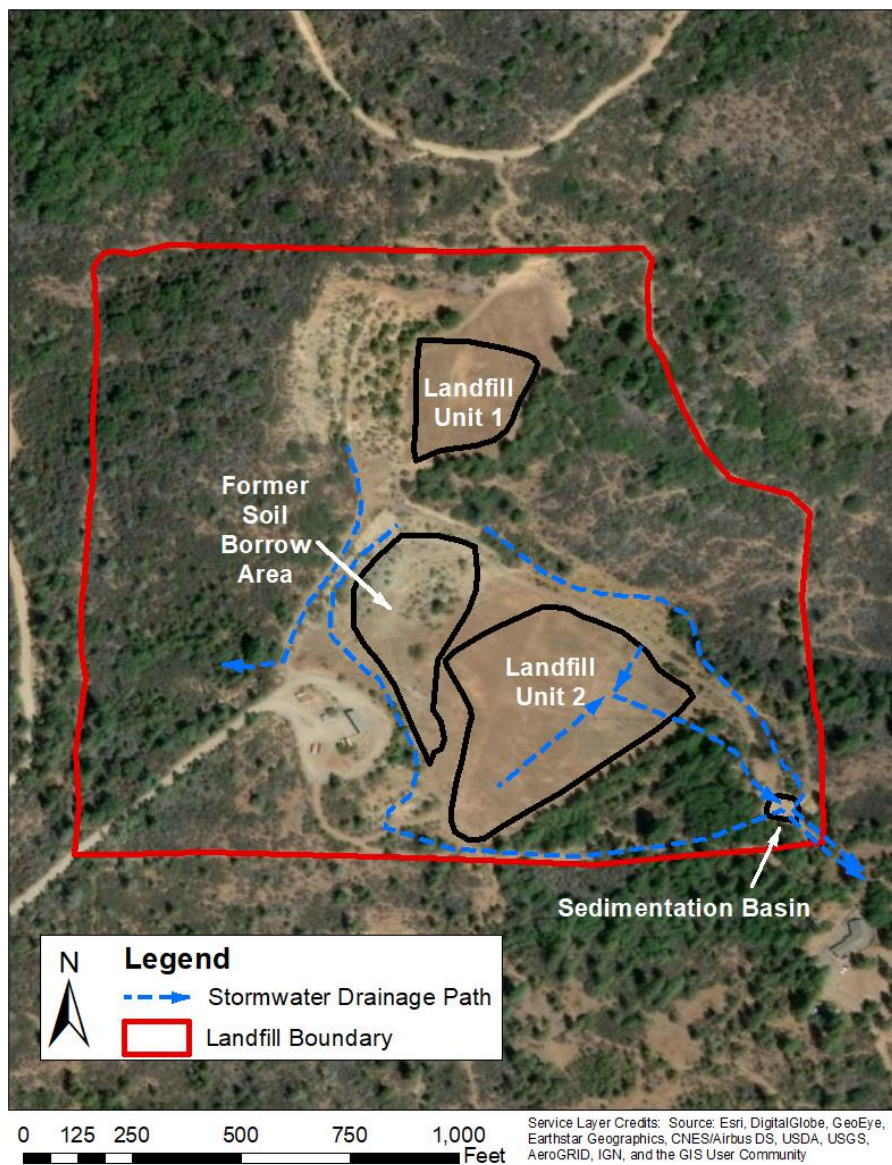
ATTACHMENT D—EXISTING WATER SUPPLY WELL MAP



ATTACHMENT E—EXISTING FACILITY WATER QUALITY MONITORING POINTS MAP



ATTACHMENT F—EXISTING FINAL COVER AND STORMWATER DRAINAGE PLAN



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TENTATIVE MONITORING AND REPORTING ORDER R5-2020-XXXX

MONITORING AND REPORTING PROGRAM
FOR
YUBA COUNTY DEPARTMENT OF PUBLIC WORKS
AND
UNITED STATES DEPARTMENT OF INTERIOR, BUREAU OF LAND MANAGEMENT
PONDEROSA LANDFILL
YUBA COUNTY

Preface

Adopted pursuant to Water Code section 13267, this Order establishes a Monitoring and Reporting Program (MRP) incorporating the prescriptive monitoring and reporting requirements of California Code of Regulations, title 27 (Title 27), section 20005 et seq.

Although incorporated as part of Waste Discharge Requirements Order R5-2020- (WDRs Order), this MRP Order is separately enforceable, and may be separately revised by the Executive Officer under authority delegated pursuant to Water Code section 13223.

Except as otherwise provided below in this MRP Order, each of the Findings set forth in the WDRs Order are incorporated herein.

A. Monitoring Requirements

1. Detection Monitoring Programs (DMPs)

- a. All Detection Monitoring Program (DMP) systems designed and constructed pursuant to this Order shall be a certified by a California-licensed professional civil engineer or geologist (Qualified Professional) as meeting the requirements of Title 27.
- b. The Discharger shall comply with the detection monitoring program provisions of Title 27 for groundwater, surface water, and the unsaturated zone in accordance with Standard Monitoring Specifications in Section I of the SPRRs and the Monitoring Specifications in Section G of the WDRs.

2. Compliance with Sample Collection and Analysis Plan (SCAP)

- a. Samples shall be collected, preserved and transported in accordance with the approved Sample Collection and Analysis Plan

(SCAP) and the quality assurance/quality control (QA/QC) standards therein.

- b. The Discharger may use alternative analytical test methods (including new USEPA-approved methods), provided that the alternative methods have method detection limits (MDLs) equal to or lower than the analytical methods specified in this MRP, and are identified in the approved SCAP.

3. Groundwater Monitoring

- a. **Required Network**—The Facility's groundwater monitoring network shall consist of the wells listed below in **Table 7**.

Table 7—Groundwater Monitoring Network

Well	Program	Monitored Unit	Zone
MW-1	Detection, Corrective Action	LF-2	N/A
MW-2	Detection	LF-2	N/A
MW-3	Detection, Corrective Action	LF-1	N/A
MW-4	Detection, Corrective Action	LF-1	N/A
MW-5	Background	LF-1, LF-2	N/A
MW-6	Detection	LF-2	N/A
MW-7	Detection	LF-2	N/A
MW-8	Detection, Corrective Action	LF-1	N/A

- b. Groundwater samples shall be collected from each well, and analyzed for the field parameters and monitoring parameters specified in **Table 8** (in accordance with the specified schedule).³

Table 8—Groundwater DMP, Field Parameters and Monitoring Parameters

Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
<i>Field Parameters</i>				
Temperature	TEMP	°F	Semiannual	Semiannual
Electrical Conductivity	SC	µmhos/cm	Semiannual	Semiannual
pH	PH	pH Units	Semiannual	Semiannual
Turbidity	TURB	NTUs	Semiannual	Semiannual
<i>Monitoring Parameters</i>				
TDS	TDS	mg/L	Semiannual	Semiannual
Chloride	CL	mg/L	Semiannual	Semiannual
Carbonate	CACO3	mg/L	Semiannual	Semiannual
Bicarbonate	BICACO3	mg/L	Semiannual	Semiannual
Iron	FE	mg/L	Semiannual	Semiannual
Nitrate (as Nitrogen)	NO3N	mg/L	Semiannual	Semiannual
Sulfate	SO4	mg/L	Semiannual	Semiannual
Calcium	CA	mg/L	Semiannual	Semiannual
Magnesium	MG	mg/L	Semiannual	Semiannual
Manganese	MN	mg/L	Semiannual	Semiannual
Potassium	K	mg/L	Semiannual	Semiannual
Sodium	NA	mg/L	Semiannual	Semiannual
Short List VOCs (per Attachment A)	(various)	ug/L	Annual	Annual

³ Monitoring wells established for the Detection Monitoring Program (DMP) constitute the monitoring points for the groundwater Water Quality Protection Standard (WQPS).

- c. Additionally, the Discharger shall analyze for groundwater samples from each well for the Five-Year COCs listed in **Table 9**.⁴

Table 9—Groundwater DMP, Five-Year COC Monitoring Parameters

Parameter	GeoTracker Code	Units	Sampling & Reporting Freq.
Total Organic Carbon	TOC	mg/L	Annual
Dissolved Inorganics (per Attachment B)	(various)	µg/L	Annual
Extended List VOCs (per Attachment C)	(various)	µg/L	Every 5 Years
Semi-Volatile Organic Compounds (per Attachment D)	(various)	µg/L	December 2024
Chlorophenoxy Herbicides (per Attachment E)	(various)	µg/L	December 2024
Organophosphorus Compounds (per Attachment E)	(various)	µg/L	December 2024

- d. Each quarter, the Discharger shall also monitor the overall groundwater conditions specified below in **Table 10**.

Table 10—Groundwater Conditions Monitoring

Parameter	GeoTracker Code	Monitoring Freq.	Reporting Freq.
Elevation (Well-Specific)	ELEV	Quarterly	Semiannually
Gradient	(none)	Quarterly	Semiannually
Flow Rate ⁵	(none)	Annual	(SMRs)

⁴ Five-Year COCs were last monitored in 2019, and shall be analyzed again in 2024.

⁵ To the extent feasible, the Discharger shall determine ground water flow rate and direction in: (1) the uppermost aquifer; (2) any zones of perched water; and (3) in any additional portions of the zone of saturation monitored pursuant to Title 27, section 20415, subdivision (b)(1).

4. Unsaturated Zone Monitoring (Not applicable).

Groundwater monitoring will continue to be used as the principle means of assessing the performance of the closed landfill.

5. Leachate Monitoring (Not Applicable)

6. Seep Monitoring.

Leachate that seeps to the surface from a landfill unit shall be sampled and analyzed for the Field and Monitoring Parameters listed in Table III upon detection. The quantity of leachate shall be estimated and reported as Leachate Flow Rate (in gallons/day). Reporting for leachate seeps shall be conducted as required in Section B.3 of this MRP, below.

7. Annual LCRS Testing (Not Applicable)

8. Surface Water Monitoring⁶

- a. **Required Network**—The Dischargers shall operate and maintain a surface water monitoring network consisting of the points listed in **Table 11**. This network shall comply with the applicable provisions of Title 27, sections 20415 and 20420.

Table 11—Surface Water Monitoring Network

Monitoring Point	Location	Status
SB1-INF	Influent into Sedimentation Basin	Planned
SB1-EFF	Effluent from Sedimentation Basin	Planned

- b. **Parameters**—Surface water samples shall be collected from each monitoring point listed above, and analyzed in accordance with For surface water detection monitoring, a sample shall be collected at each monitoring point location and analyzed for the monitoring parameters and constituents in accordance with the methods and frequency specified in Table IV. All surface water monitoring samples shall be collected and analyzed for the 5-year COCs specified in Table IV every five years, beginning again in 2020.

⁶ Runoff from landfill areas within the Facility flows to sedimentation basins, which periodically discharge to Dry Creek, which is a waters of the United States.

Table 12—Surface Water DMP: Field Parameters and Monitoring Parameters

Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
<i>Field Parameters</i>				
Electrical Conductivity	SC	µmhos/cm	Semiannual	Semiannual
pH	PH	pH Units	Semiannual	Semiannual
Turbidity	TURB	NTUs	Semiannual	Semiannual
Flow to Waters of U.S.	(none)	YES	Semiannual	Semiannual
<i>Monitoring Parameters</i>				
TDS	TDS	mg/L	Semiannual	Semiannual
Chloride	CL	mg/L	Semiannual	Semiannual
Carbonate	CACO3	mg/L	Semiannual	Semiannual
Bicarbonate	BICACO3	mg/L	Semiannual	Semiannual
Iron	FE	mg/L	Semiannual	Semiannual
Nitrate (as Nitrogen)	NO3N	mg/L	Semiannual	Semiannual
Sulfate	SO4	mg/L	Semiannual	Semiannual
Calcium	CA	mg/L	Semiannual	Semiannual
Magnesium	MG	mg/L	Semiannual	Semiannual
Manganese	MN	mg/L	Semiannual	Semiannual
Potassium	K	mg/L	Semiannual	Semiannual
Sodium	NA	mg/L	Semiannual	Semiannual
Short List VOCs (see Attachment A)	(various)	µg/L	Annually	Annually

B. Additional Facility Monitoring Requirements

- Regular Visual Inspections**—The Discharger shall perform regular visual inspections listed in **Table 13**, in accordance with the schedule specified in **Table 14**. Results of these regular visual inspections shall be included in Semiannual Monitoring Reports (SMRs) per **Section D.1** of this MRP Order.

Table 13—Regular Visual Inspections

Category	Observations
<i>Within Unit</i>	<ul style="list-style-type: none"> Evidence of ponded water at any point on unit outside of any contact storm water/leachate diversions structures on the active face of unit (record affected areas on map). Evidence of erosion and/or of day-lighted refuse.
<i>Unit Perimeter</i>	<ul style="list-style-type: none"> Evidence of leachate seeps, estimated size of affected area and flow rate (record affected areas on map). Evidence of erosion and/or of day-lighted refuse.
<i>Receiving Waters</i>	<ul style="list-style-type: none"> Floating and suspended materials of waste origin—presence or absence, source and size of affected areas. Discoloration and turbidity—description of color, source and size of affected areas.

Table 14—Regular Visual Inspection Schedule

Category	Wet Season (1 Oct. to 30 April)	Dry Season (1 May to 30 Sept.)
<i>Active Units</i>	Weekly	Monthly
<i>Inactive or Closed Units</i>	Monthly	Quarterly

2. **Annual Facility Inspections**—Prior to **1 September** of each year, the Discharger shall inspect the Facility to assess repair and maintenance needs for drainage control systems, cover systems and groundwater monitoring wells; and preparedness for winter conditions (e.g., erosion and sedimentation control).
 - a. If repairs are made as result of the annual inspection, problem areas shall be photographed before and after repairs. Any necessary construction, maintenance, or repairs shall be completed by 30 September.
 - b. Annual facility inspection reporting shall be submitted as required in Section B.4 of this MRP.
 3. **Major Storm Events**—Within **seven days** of any storm event capable of causing damage or significant erosion (Major Storm Event), the Dischargers shall inspect the Facility for damage to any precipitation, diversion and drainage facilities, and all landfill side slopes. Necessary repairs shall be completed within 30 days of the inspection. The Discharger shall take photos of any problem areas before and after repairs. See Notification and reporting requirements for major storm events shall be conducted as required in Section B.5 of this MRP.
 4. **Five-Year Iso-Settlement Surveys for Closed Landfill Units**—The Dischargers shall conduct a five-year iso-settlement survey of each closed landfill units, and produce an iso-settlement map accurately depicting the estimated total change in elevation of each portion of the final cover's low-hydraulic-conductivity layer. For each portion of the landfill, this map shall show the total lowering of the surface elevation of the final cover, relative to the baseline topographic map. (Title 27, § 21090, subds. (e)(1)-(2).) See Section XXX for iso-settlement survey reporting requirements.⁷
- C. Corrective Action Monitoring**—In addition to the monitoring activities described above, the Dischargers shall monitor its corrective action systems in accordance with provisions of this section.

The Discharger shall conduct corrective action monitoring to demonstrate the effectiveness of corrective action in accordance with Title 27, section 20430 and this MRP.

⁷ The next iso-settlement survey shall be conducted in 2020.

Groundwater monitoring wells and unsaturated zone monitoring points that are in a corrective action monitoring program shall be monitored in accordance with the groundwater and unsaturated zone monitoring requirements in parts A.1 and A.2 of this MRP, except as modified in this part of the MRP for any additional constituents or modified monitored frequencies.

1. Groundwater

- a. The Discharger shall monitor the following corrective action monitoring wells as required in part A.2, A.3, and Table 8 of this MRP, with the following additional constituents, and the following alternant sampling frequency for all Field and Monitoring Parameters listed in Table 15:

Table 15—Corrective Action: Groundwater Monitoring Network

Well	Zone	Additional Constituents	Sampling Frequency
MW-1	N/A	none	Quarterly
MW-3	N/A	none	Quarterly
MW-4	N/A	none	Quarterly
MW-8	N/A	none	Quarterly

D. Reporting Requirements

Table 16—Summary of Required Reporting

Report	End of Reporting Period	Due Date
Semiannual	30 June	1 Aug.
Monitoring Reports (SMRs)	31 Dec.	1 Feb.
Annual Monitoring Report (AMRs)	31 Dec.	1 Feb.
Seep Reporting	(continuous)	Immediately (Notice w/in 7 Days)
Annual Facility Inspection Report	31 Oct.	15 Nov.

Major Storm Event Report	(continuous)	7 Days after Discovery of Damage
Iso-Settlement Survey and Mapping Report	Every 5 Years	2020 and every five years thereafter

1. **Semiannual Monitoring Reports (SMRs)**—By **1 August** and **1 February**⁸ of each year, the Discharger shall submit a Semiannual Monitoring Reports (SMRs) in accordance with the provisions below.
 - a. For each groundwater monitoring point addressed by the report, a description of:
 - i. The time of water level measurement;
 - ii. The type of pump (or other device) used for purging and the elevation of the pump intake relative to the elevation of the screened interval;
 - iii. The method of purging used to stabilize water in the well bore before the sample is taken including the pumping rate; the equipment and methods used to monitor field pH, temperature, and conductivity during purging; results of pH, temperature, conductivity, and turbidity testing; and the method of disposing of the purge water;
 - iv. The type of pump (or other device) used for sampling, if different than the pump or device used for purging; and
 - v. A statement that the sampling procedure was conducted in accordance with the approved SCAP.
 - b. A map or aerial photograph showing the locations of observation stations, monitoring points, and background monitoring points.
 - c. An estimated quarterly groundwater flow rate and direction in:
 - (1) the uppermost aquifer; (2) any zones of perched water; and
 - (3) any additional zone of saturation monitored based upon water

⁸ The 1 Feb. Semiannual Monitoring Report may be combined with the Annual Monitoring Report (due on the same date), provided that the combination is clearly indicated in the title of the report.

level elevations taken prior to the collection of the water quality data submitted in the report. (See Title 27, § 20415, subd. (e)(15).)

- d. including the times of expected highest and lowest elevations of the water levels in the wells. (See Title 27, § 20415, subd. (e)(15).)
- e. Cumulative tabulated monitoring data for all monitoring points and constituents for groundwater, unsaturated zone, leachate, and surface water.
 - i. Concentrations below the laboratory reporting limit shall not be reported as “ND” unless the reporting limit is also given in the table. Otherwise they shall be reported “<” the reporting limit (e.g., <0.10).
 - ii. Units shall be as required in Tables I through IV unless specific justification is given to report in other units. Refer to the SPRRs Section I “Standard Monitoring Specifications” for requirements regarding MDLs and PQLs.
- f. Laboratory statements of results of all analyses evaluating compliance with requirements.
- g. An evaluation of the concentration of each monitoring parameter (or 5-year COC when five year COC sampling is conducted) as compared to the current concentration limits, and the results of any required verification testing for constituents exceeding a concentration limit . Report any actions taken under Section J: Response to a Release for verified exceedances of a concentration limit for wells/constituents not already in corrective action monitoring.
- h. An evaluation of the effectiveness of the leachate monitoring and control facilities, and of the run off/run on control facilities. Include a summary of any instances where leachate depth on an MSW landfill liner system exceeded 30 cm (excluding the leachate sump), and information about the required notification and corrective action in Standard Facility Specification E.13 of the SPRRs.
- i. A summary of all Standard Observations for the reporting period required in Section A.5.d of this MRP.
- j. A summary of inspection, leak search, and repair of final covers on any closed landfill units in accordance with an approved final post-closure maintenance plan as required by Standard Closure and

Post-Closure Maintenance Specifications G.26 through G.29 of the SPRRs.

- k. A comprehensive discussion of any Corrective Action Program required by this MRP under Section A.6.

2. Annual Monitoring Reports (AMRs)—By **1 February** of each year,⁹ the Discharger shall submit Annual Monitoring Reports (AMRs) containing each of the following components.

- a. Graphs showing historical trends for monitoring parameters¹⁰ at each background and compliance monitoring point.
 - i. All monitoring parameters shall be graphed to show historical trends at each monitoring point and background monitoring point, for all samples taken within at least the previous five calendar years.
 - ii. If a 5-year COC event was performed, than these parameters shall also be graphically presented.
 - iii. Each such graph shall plot the concentration of one or more constituents for the period of record for a given monitoring point or background monitoring point, at a scale appropriate to show trends or variations in water quality.
 - iv. The graphs shall plot each datum, rather than plotting mean values.
 - v. Graphical analysis of monitoring data may be used to provide significant evidence of a release.
- b. An evaluation of the monitoring parameters with regards to the cation/anion balance, and a graphical presentation using a Stiff diagram, a Piper graph, or a Schoeller plot.
- c. All historical monitoring data for which there are detectable results, including data for the previous year, shall be submitted in tabular form in a digital file format such as a computer disk. The Central

⁹ See instructions in **Footnote 8** regarding combination of AMR with the 1 Feb. SMR.

¹⁰ If analyzed during the annual reporting period, the monitoring parameters for Five-Year COCs (see Attachments B through E) shall be included in the graphs as well.

Valley Water Board regards the submittal of data in hard copy and in digital format as "...the form necessary for..." statistical analysis [Title 27, section 20420(h)], that facilitates periodic review by the Central Valley Water Board.

- d. Hydrographs of each well showing the elevation of groundwater with respect to the elevations of the top and bottom of the screened interval and the elevation of the pump intake. Hydrographs of each well shall be prepared quarterly and submitted annually.
 - e. A comprehensive discussion of the compliance record, and the result of any corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the waste discharge requirements.
 - f. A map showing the area and elevations in which filling has been completed during the previous calendar year and a comparison to final closure design contours, and include a projection of the year in which each discrete landfill module will be filled.
 - g. A written summary of the monitoring results, indicating any changes made or observed since the previous Annual Monitoring Report.
 - h. The results of the annual testing of leachate collection and removal systems required under Standard Facility Specification E.14 of the SPRRs.
 - i. Updated concentration limits for each monitoring parameter at each monitoring well based on the new data set.
3. **Seep Reporting**—Upon discovery of seepage from any disposal area within the Facility, the Dischargers shall **immediately** report such seepage to the Central Valley Water Board via telephone or email; and **within seven days**, submit a written report with the following information:
- a. Map(s) depicting the location(s) of seepage;
 - b. Estimated flow rate(s);
 - c. A description of the nature of the discharge (e.g., all pertinent observations and analyses);
 - d. Verification that samples have been submitted for analyses of the Field Parameters and Monitoring Parameters listed in Table III of

this MRP, and an estimated date that the results will be submitted to the Central Valley Water Board; and

- e. Corrective measures underway or proposed, and corresponding time schedule.
4. **Annual Facility Inspection Report**—By 15 November of each year, the Discharger shall submit a report describing the results of the inspection and the repair measures implemented, preparations for winter, and include photographs of any problem areas and the repairs. Refer to Section A.5.a of this MRP, above.
5. **Major Storm Event Reports**—Immediately following each post-storm inspection described in Section B.3 of this MRP, the Dischargers shall notify Following major storm events capable of causing damage or significant erosion, the Discharger immediately shall notify Central Valley Water Board staff of any damage or significant erosion upon discovery and report subsequent repairs within 14 days of completion of the repairs, including photographs of the problem and the repairs.
6. **Survey and Iso-Settlement Map (Closed Landfill Units)**—The Discharger shall submit all iso-settlement maps prepared in accordance with Section B.4 of this MRP. (See Title 27, § 21090, subd. (e).) The next maps are due on February 2021.
7. **Financial Assurances Report**—By 1 June of each year, the Discharger shall submit a copy of the annual financial assurances report due to CalRecycle that updates the financial assurances for closure, post-closure maintenance, and corrective action. (See WDRs Order, § F.)

E. Water Quality Protection Standard (WQPS)

1. WQPS Components

- a. For each WMU, the WQPS shall consist of:
 - i. All Constituents of Concern (COCs);
 - ii. The concentration limit applicable for each COC;
 - iii. The verification retesting procedure to confirm measurably significant evidence of a release;
 - iv. The point of compliance; and

- v. All water quality monitoring points for each monitored medium.
- b. For naturally occurring constituents, the WQPS shall consist of:
 - i. Naturally occurring COCs;
 - ii. The concentration limits of each naturally occurring COC;
 - iii. The point of compliance; and
 - iv. All monitoring points.

2. WQPS Report

- a. Any proposed changes to the WQPS, other than annual update of the concentration limits, shall be submitted in a WQPS Report for review and approval.
- b. The WQPS report shall:
 - i. Identify all distinct bodies of surface water and groundwater that could be affected in the event of a release from a waste management unit or portion of a unit. This list shall include at least the uppermost aquifer and any permanent or ephemeral zones of perched groundwater underlying the facility.
 - ii. Include a map showing the monitoring points and background monitoring points for the surface water monitoring program, groundwater monitoring program, and the unsaturated zone monitoring program. The map shall include the point of compliance in accordance with Title 27, section 20405.
 - iii. Evaluate the perennial direction(s) of groundwater movement within the uppermost groundwater zone(s).
 - iv. Include a proposed statistical method for calculating concentration limits for monitoring parameters and constituents of concern that are detected in 10% or greater of the background data (naturally-occurring constituents) using a statistical procedure from Title 27, section 20415(e)(8)(A-D)] or section 20415(e)(8)(E).

- v. Include a retesting procedure to confirm or deny measurably significant evidence of a release (See Title 27, §§ 20415, subd. (e)(8)(E), 20420, subds. (j)(1)-(3).
 - c. The WQPS shall be certified by a California-registered civil engineer or geologist as meeting the requirements of Title 27. If subsequent sampling of the background monitoring point(s) indicates significant water quality changes due to either seasonal fluctuations or other reasons unrelated to waste management activities at the site, the Dischargers may request modification of the WQPS.
 - d. The Discharger proposed the methods for calculating concentration limits in the 2018 WQPS Report.
 - e. The limits are calculated using Interwell tolerance limits at 95% confidence and 95% coverage based on background data from background monitoring well MW-5.
 - f. The WQPS shall be updated annually for each monitoring well using new and historical monitoring data.
3. **Monitoring Parameters**—A select group of constituents monitored during each sampling event, monitoring parameters are the waste constituents, reaction products, hazardous constituents and physical parameters that provide a reliable indication of a release from a given WMU.

The monitoring parameters are listed in Tables 7 – 10 (groundwater), and Tables 11 – 12 (surface water).

4. **Constituents of Concern (COCs)**—COCs include a larger group of waste constituents, their reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the waste management unit, and are required to be monitored every five years. (See Title 27, §§ 20395, 20420(g).)

The COCs for all WMUs at the facility are those listed in Attachments B through E for the specified monitored medium. The Discharger shall monitor all COCs every five years, or more frequently as required in accordance with a Corrective Action Program. The last 5-year COC report was submitted to the Central Valley Water Board in the 2019 Annual Monitoring Report, and 5-year COCs are due to be monitored again in 2024.

5. Concentration Limits

- a. The concentration limit of each naturally occurring COC shall be determining
 - i. By calculation in accordance with a statistical method in accordance with Title 27, section 20415, subdivision (e)(8); or
 - ii. By an alternate statistical method in accordance with Title 27, section 20415, subdivision (e)(8)(E).
- b. The methods for calculating concentration limits were included in the 2018 WQPS Report. The approved method uses Interwell tolerance limits at 95% confidence and 95% coverage based on background data from background monitoring well MW-5.
- c. The most recent concentration limits for select parameters as reported in the 2018 Annual Monitoring Report were as follows:

Table 17—Concentration Limits for Parameters in Background Well MW-5 (2018 AMR)

Constituents	Concentration Limit
pH (std. units)	6.5-8.5
EC (µmhos/cm)	To be determined
Alkalinity, Bicarbonate (mg/L)	160
Iron, dissolved (mg/L)	To be determined
Chloride (mg/L)	9.7
Nitrate (N) as Nitrogen (mg/L)	0.66
Sulfate as SO ₄ (mg/L)	7.7
TDS (mg/L)	270
Calcium, dissolved (mg/L)	35
Magnesium, dissolved (mg/L)	19

Manganese, dissolved (mg/L)	To be determined
Sodium, dissolved (mg/L)	16
Potassium, dissolved (mg/L)	2.0
VOCs, Semi-VOCs, Chlorophenoxy Herbicides, and Organophosphorus Compounds	Non-Detect

6. **Retesting Procedures to Confirm Release**—If monitoring results indicate measurably significant evidence of a release per Section I.45 of the SPRRs, the Dischargers shall:
- For analytes that are detected in less than 10% of the background samples (such as non-naturally occurring constituents), the Discharger shall use the non-statistical retesting procedure required in Standard Monitoring Specification I.46 of the SPRRs.
 - For analytes that are detected in 10% or greater of the background samples (naturally occurring constituents), the Discharger shall use one of the statistical retesting procedure as required in Standard Monitoring Specification I.47 of the SPRRs.
7. **Point of Compliance (POC)**—For purposes of the WQPS, the POC of each WMU shall be the vertical surface located at the hydraulically down-gradient limit extending through the uppermost underlying aquifer. The following are monitoring locations at the point of compliance:

Table 18—Point of Compliance Monitoring Wells

Cell / Module	Monitoring Wells
LF-1	MW-3, MW-4, MW-8
LF-2	MW-1, MW-2, MW-7

8. Monitoring Points

- a. Additional groundwater monitoring points include MW-5, an upgradient background monitoring well and MW-6, a monitoring well side-gradient to landfill Unit LF-2.

F. Compliance Period

1. The compliance period for each WMU shall be the number of years equal to the active life of the unit plus the closure period. The compliance period is the minimum period during which the Discharger shall conduct a water quality monitoring program subsequent to a release from the WMU. The compliance period shall restart each time the Discharger initiates an evaluation monitoring program. (See Title 27, § 20410.)

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. The State Water Board must receive the petition by 5:00 p.m. on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions are available on the Internet (at the address below), and will be provided upon request.

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

I, PATRICK PULUPA, Executive Officer, hereby certify that the foregoing is a full true and correct copy of the Order adopted by the California Regional Water Quality Control Board on _____ April _____.

PATRICK PULUPA
Executive Officer
Central Valley Water Board

Order Attachments

- Attachment A— Volatile Organic Compounds, Short List
- Attachment B— Dissolved Organics (5-Year COCs)
- Attachment C— Volatile Organic Compounds, Extended List (5 Year COCs)
- Attachment D— Semi-Volatile Organic Compounds (5-Year COCs)
- Attachment E— Chlorophenoxy Herbicides and Organophosphorus Compounds (5 Year COCs)
- Attachment F— Surrogates for Metallic Constituents of Concern

MRP GLOSSARY

bgs	Below Ground Surface
BLM.....	U.S. Department of Interior, Bureau of Land Management
BOD	Biological Oxygen Demand
CAP	Corrective Action Program
CAMP.....	Corrective Action Monitoring Program
COCs	Constituents of Concern
DMP	Detection Monitoring Program
EC	Electrical Conductivity
EMP	Evaluation Monitoring Plan
LCRS.....	Leachate Collection and Removal System
LFG	Landfill Gas
MDL.....	Method Detection Limit
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter
MSL.....	Mean Sea Level
MRP	Monitoring and Reporting Program
MW.....	Monitoring Well
SPRRs	Standard Provisions and Reporting Requirements
Subtitle D.....	USEPA-promulgated MSW regulations under RCRA (see 40 C.F.R. part 258)
RCRA.....	Resource Conservation and Recovery Act
ROWD.....	Report of Waste Discharge
TDS	Total Dissolved Solids

Title 22	California Code of Regulations, <u>Title 22</u>
Title 23	California Code of Regulations, <u>Title 23</u>
Title 27	California Code of Regulations, <u>Title 27</u>
USEPA	United States Environmental Protection Agency
VOCs.....	Volatile Organic Compounds
WDRs.....	Waste Discharge Requirements
WMU	Waste Management Unit
WQPS	Water Quality Protection Standard
X.....	xxx

MRP ATTACHMENT A—VOLATILE ORGANIC COMPOUNDS, SHORT LIST

Volatile Organic Compounds—Short List USEPA Method 8260B	GeoTracker Code
Acetone	ACE
Acrylonitrile	ACRAMD
Benzene	BZ
Bromochloromethane	BRCLME
Bromodichloromethane	BDCME
Bromoform (Tribromomethane)	TBME
Carbon disulfide	CDS
Carbon tetrachloride	CTCL
Chlorobenzene	CLBZ
Chloroethane (Ethyl chloride)	CLEA
Chloroform (Trichloromethane)	TCLME
Dibromochloromethane (Chlorodibromomethane)	DBCME
1,2-Dibromo-3-chloropropane (DBCP)	DBCP
1,2-Dibromoethane (Ethylene dibromide; EDB)	EDB
o-Dichlorobenzene (1,2-Dichlorobenzene)	DCBZ12
m-Dichlorobenzene (1,3-Dichlorobenzene)	DCBZ13
p-Dichlorobenzene (1,4-Dichlorobenzene)	DCBZ14
trans-1,4-Dichloro-2-butene	DCBE14T
Dichlorodifluoromethane (CFC-12)	FC12

MRP ATTACHMENT A—ADDITIONAL PARAMETERS FOR ALL DETECTION MONITORING PROGRAMS

Volatile Organic Compounds—Short List USEPA Method 8260B	GeoTracker Code
1,1-Dichloroethane (Ethylidene chloride)	DCA11
1,2-Dichloroethane (Ethylene dichloride)	DCA12
1,1 -Dichloroethylene (1,1 -Dichloroethene; Vinylidene chloride)	DCE11
cis- 1,2-Dichloroethylene (cis- 1,2-Dichloroethene)	DCE12C
trans-1,2-Dichloroethylene (trans-1,2-Dichloroethene)	DCE12T
1,2-Dichloropropane (Propylene dichloride)	DCPA12
cis- 1,3-Dichloropropene	DCP13C
trans- 1,3-Dichloropropene	DCP13T
Di-isopropylether (DIPE)	DIPE
Ethanol	ETHANOL
Ethyltertiary butyl ether	ETBE
Ethylbenzene	EBZ
2-Hexanone (Methyl butyl ketone)	HXO2
Hexachlorobutadiene	HCBU
Methyl bromide (Bromomethene)	BRME
Methyl chloride (Chloromethane)	CLME
Methylene bromide (Dibromomethane)	DBMA
Methylene chloride (Dichloromethane)	DCMA
Methyl ethyl ketone (MEK: 2-Butanone)	MEK
Methyl iodide (Iodomethane)	IME

MRP ATTACHMENT A—ADDITIONAL PARAMETERS FOR ALL DETECTION MONITORING PROGRAMS

Volatile Organic Compounds—Short List USEPA Method 8260B	GeoTracker Code
Methyl t-butyl ether	MTBE
4-Methyl-2-pentanone (Methyl isobutylketone)	MIBK
Naphthalene	NAPH
Styrene	STY
Tertiary amyl methyl ether	TAME
Tertiary butyl alcohol	TBA
1,1,1,2-Tetrachloroethane	TC1112
1,1,2,2-Tetrachloroethane	PCA
Tetrachloroethylene (Tetrachloroethene; Perchloroethylene)	PCE
Toluene	BZME
1,2,4-Trichlorobenzene	TCB124
1,1,1-Trichloroethane (Methylchloroform)	TCA111
1,1,2-Trichloroethane	TCA112
Trichloroethylene (Trichloroethene)	TCE
Trichlorofluoromethane (CFC- 11)	FC11
1,2,3-Trichloropropane	TCPR123
Vinyl acetate	VA
Vinyl chloride	VC
Xylenes	XYLENES

MRP ATTACHMENT B—DISSOLVED ORGANICS (5-YEAR COCs)

Constituent	GeoTracker Code	USEPA Method
Aluminum	AL	6010
Antimony	SB	7041
Barium	BA	6010
Beryllium	BE	6010
Cadmium	CD	7131A
Chromium	CR	6010
Cobalt	CO	6010
Copper	CU	6010
Silver	AG	6010
Tin	SN	6010
Vanadium	V	6010
Zinc	ZN	6010
Iron	FE	6010
Manganese	MN	6010
Arsenic	AS	7062
Lead	PB	7421
Mercury	HG	7470A
Nickel	NI	7521
Selenium	SE	7742

MRP ATTACHMENT B—VOLATILE ORGANIC COMPOUNDS, EXT. LIST (5-YEAR COCs)

Thallium	TL	7841
Cyanide	CN	9010C
Sulfide	S	9030B

**MRP ATTACHMENT C—VOLATILE ORGANIC COMPOUNDS, EXTENDED LIST
(5-YEAR COCs)**

Volatile Organic Compounds USEPA Method 8260, Extended List	GeoTracker Code
Acetone	ACE
Acetonitrile (Methyl cyanide)	ACCN
Acrolein	ACRL
Acrylonitrile	ACRAMD
Allyl chloride (3-Chloropropene)	CLPE3
Benzene	BZ
Bromochloromethane (Chlorobromomethane)	BRCLME
Bromodichloromethane (Dibromochloromethane)	DBCME
Bromoform (Tribromomethane)	TBME
Carbon disulfide	CDS
Carbon tetrachloride	CTCL
Chlorobenzene	CLBZ
Chloroethane (Ethyl chloride)	CLEA
Chloroform (Trichloromethane)	TCLME
Chloroprene	CHLOROPRENE
Dibromochloromethane (Chlorodibromomethane)	DBCME
1,2-Dibromo-3-chloropropane (DBCP)	DBCP
1,2-Dibromoethane (Ethylene dibromide; EDB)	EDB
o-Dichlorobenzene (1,2-Dichlorobenzene)	DCBZ12
m-Dichlorobenzene(1,3-Dichlorobenzene)	DCBZ13
p-Dichlorobenzene (1,4-Dichlorobenzene)	DCBZ14
trans- 1,4-Dichloro-2-butene	DCBE14T
Dichlorodifluoromethane (CFC 12)	FC12
1,1 -Dichloroethane (Ethylidene chloride)	DCA11
1,2-Dichloroethane (Ethylene dichloride)	DCA12
1,1 -Dichloroethylene (1, 1-Dichloroethene; Vinylidene chloride)	DCE11
cis- 1,2-Dichloroethylene (cis- 1,2-Dichloroethene)	DCE12C
trans- 1,2-Dichloroethylene (trans- 1,2-Dichloroethene)	DCE12T
1,2-Dichloropropane (Propylene dichloride)	DCPA12
1,3-Dichloropropane (Trimethylene dichloride)	DCPA13
2,2-Dichloropropane (Isopropylidene chloride)	DCPA22
1,1 -Dichloropropene	DCP11
cis- 1,3-Dichloropropene	DCP13C

MRP ATTACHMENT C—VOLATILE ORGANIC COMPOUNDS, EXTENDED LIST (5-YEAR COCS)

Volatile Organic Compounds USEPA Method 8260, Extended List	GeoTracker Code
trans-1,3-Dichloropropene	DCP13T
Di-isopropylether (DIPE)	DIPE
Ethanol	ETHANOL
Ethyltertiary butyl ether	ETBE
Ethylbenzene	EBZ
Ethyl methacrylate	EMETHACRY
Hexachlorobutadiene	HCBU
2-Hexanone (Methyl butyl ketone)	HXO2
Isobutyl alcohol	ISOBTOH
Methacrylonitrile	METHACRN
Methyl bromide (Bromomethane)	BRME
Methyl chloride (Chloromethane)	CLME
Methyl ethyl ketone (MEK; 2-Butanone)	MEK
Methyl iodide (Iodomethane)	IME
Methyl t-butyl ether	MTBE
Methyl methacrylate	MMTHACRY
4-Methyl-2-pentanone (Methyl isobutyl ketone)	MIBK
Methylene bromide (Dibromomethane)	DBMA
Methylene chloride (Dichloromethane)	DCMA
Naphthalene	NAPH
Propionitrile (Ethyl cyanide)	PACN
Styrene	STY
Tertiary amyl methyl ether	TAME
Tertiary butyl alcohol	TBA
1,1,1,2-Tetrachloroethane	TC1112
1,1,2,2-Tetrachloroethane	PCA
Tetrachloroethylene (Tetrachloroethene; Perchloroethylene; PCE)	PCE
Toluene	BZME
1,2,4-Trichlorobenzene	TCB124
1,1,1 -Trichloroethane (Methylchloroform)	TCA111
1,1,2-Trichloroethane	TCA112
Trichloroethylene (Trichloroethene; TCE)	TCE
Trichlorofluoromethane (CFC-11)	FC11
1,2,3-Trichloropropane	TCPR123
Vinyl acetate	VA
Vinyl chloride (Chloroethene)	VC
Xylene (total)	XYLENES

MRP ATTACHMENT D—SEMI-VOLATILE ORGANIC COMPOUNDS (5-YEAR COCs)

Semi-Volatile Organic Compounds, [Five-Year COCs]

Semi-Volatile Organic Compounds USEPA Methods 8270C or 8270D (Base, Neutral & Acid Extractables)	GeoTracker Code
Acenaphthene	ACNP
Acenaphthylene	ACNPY
Acetophenone	ACPHN
2-Acetylaminofluorene (2-AAF)	ACAMFL2
Aldrin	ALDRIN
4-Aminobiphenyl	AMINOBP4
Anthracene	ANTH
Benzo[a]anthracene (Benzanthracene)	BZAA
Benzo[b]fluoranthene	BZBF
Benzo[k]fluoranthene	BZKF
Benzo[g,h,i]perylene	BZGHIP
Benzo[a]pyrene	BZAP
Benzyl alcohol	BZLAL
Bis(2-ethylhexyl) phthalate	BIS2EHP
alpha-BHC	BHCALPHA
beta-BHC	BHCBETA
delta-BHC	BHCDELTA
gamma-BHC (Lindane)	BHCGAMMA
Bis(2-chloroethoxy) methane	BECEM
Bis(2-chloroethyl) ether (Dichloroethyl ether)	BIS2CEE
Bis(2-chloro-1-methylethyl) ether (Bis(2-chloroisopropyl) ether; DCIP)	BIS2CIE
4-Bromophenyl phenyl ether	BPPE4
Butyl benzyl phthalate (Benzyl butyl phthalate)	BBP
Chlordane	CHLORDANE
p-Chloroaniline	CLANIL4
Chlorobenzilate	CLBZLATE
p-Chloro-m-cresol (4-Chloro-3-methylphenol)	C4M3PH
2-Chloronaphthalene	CNPH2
2-Chlorophenol	CLPH2
4-Chlorophenyl phenyl ether	CPPE4
Chrysene	CHRYSENE
o-Cresol (2-methylphenol)	MEPH2
m-Cresol (3-methylphenol)	MEPH3
p-Cresol (4-methylphenol)	MEPH4

Semi-Volatile Organic Compounds USEPA Methods 8270C or 8270D (Base, Neutral & Acid Extractables)	GeoTracker Code
4,4'-DDD	DDD44
4,4'-DDE	DDE44
4,4'-DDT	DDT44
Diallate	DIALLATE
Dibenz[a,h]anthracene	DBAHA
Dibenzofuran	DBF
Di-n-butyl phthalate	DNBP
3,3'-Dichlorobenzidine	DBZD33
2,4-Dichlorophenol	DCP24
2,6-Dichlorophenol	DCP26
Dieldrin	DIELDRIN
Diethyl phthalate	DEPH
p-(Dimethylamino) azobenzene	PDMAABZ
7,12-Dimethylbenz[a]anthracene	DMBZA712
3,3'-Dimethylbenzidine	DMBZD33
2,4-Dimethylphenol (m-Xylenol)	DMP24
Dimethyl phthalate	DMPH
m-Dinitrobenzene	DNB13
4,6-Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)	DN46M
2,4-Dinitrophenol	DNP24
2,4-Dinitrotoluene	DNT24
2,6-Dinitrotoluene	DNT26
Di-n-octyl phthalate	DNOP
Diphenylamine	DPA
Endosulfan I	ENDOSULFANA
Endosulfan II	ENDOSULFANB
Endosulfan sulfate	ENDOSULFANS
Endrin	ENDRIN
Endrin aldehyde	ENDRINALD
Ethyl methanesulfonate	EMSULFN
Famphur	FAMPHUR
Fluoranthene	FLA
Fluorene	FL
Heptachlor	HEPTACHLOR
Heptachlor epoxide	HEPT-EPOX
Hexachlorobenzene	HCLBZ
Hexachlorocyclopentadiene	HCCP
Hexachloroethane	HCLEA
Hexachloropropene	HCPR

Semi-Volatile Organic Compounds USEPA Methods 8270C or 8270D (Base, Neutral & Acid Extractables)	GeoTracker Code
Indeno(1,2,3-c,d) pyrene	INP123
Isodrin	ISODRIN
Isophorone	ISOP
Isosafrole	ISOSAFLR
Kepone	KEP
Methapyrilene	MTPYRLN
Methoxychlor	MTXYCL
3-Methylcholanthrene	MECHLAN3
Methyl methanesulfonate	MMSULFN
2-Methylnaphthalene	MTNPH2
1,4-Naphthoquinone	NAPHQ14
1-Naphthylamine	AMINONAPH1
2-Naphthylamine	AMINONAPH2
o-Nitroaniline (2-Nitroaniline)	NO2ANIL2
m-Nitroaniline (3-Nitroaniline)	NO2ANIL3
p-Nitroaniline (4-Nitroaniline)	NO2ANIL4
Nitrobenzene	NO2BZ
p-Nitrophenol (4-Nitrophenol)	NTPH4
o-Nitrophenol (2-Nitrophenol)	NTPH2
N-Nitrosodi-n-butylamine (Di-n-butylNitrosamine)	NNSBU
N-Nitrosodiethylamine (DiethylNitrosamine)	NNSE
N-Nitrosodimethylamine (DimethylNitrosamine)	NNSM
N-Nitrosodiphenylamine (DiphenylNitrosamine)	NNSPH
N-Nitrosodipropylamine (N-Nitroso-N-dipropylamine; Di-n-propylNitrosamine)	NNSPR
N-Nitrosomethylethylamine (MethylethylNitrosamine)	NNSME
N-Nitrosopiperidine	NNSPPRD
N-Nitrosospyrrolidine	NNSPYRL
5-Nitro-o-toluidine	TLDNONT5
Pentachlorobenzene	PECLBZ
Pentachloronitrobenzene (PCNB)	PECLNO2BZ
Pentachlorophenol	PCP
Phenacetin	PHNACTN
Phenanthrene	PHAN
Phenol	PHENOL
p-Phenylenediamine	ANLNAM4
Polychlorinated biphenyls (PCBs; Aroclors)	PCBS
Pronamide	PRONAMD
Pyrene	PYR

MRP ATTACHMENT D—SEMI-VOLATILE ORGANIC COMPOUNDS (5-YEAR COCs)

Semi-Volatile Organic Compounds USEPA Methods 8270C or 8270D (Base, Neutral & Acid Extractables)	GeoTracker Code
Safrole	SAFROLE
1,2,4,5-Tetrachlorobenzene	C4BZ1245
2,3,4,6-Tetrachlorophenol	TCP2346
o-Toluidine	TLDNO
Toxaphene	TOXAP
2,4,5-Trichlorophenol	TCP245
0,0,0-Triethyl phosphorothioate	TEPTH
sym-Trinitrobenzene	TNB135

**MRP ATTACHMENT E—CHLOROPHENOXY HERBICIDES AND
ORGANOPHOSPHORUS COMPOUNDS (5-YEAR COCs)**

Chlorophenoxy Herbicides USEPA Method 8151A	GeoTracker Code
2,4 D (2,4 Dichlorophenoxyacetic acid)	24D
Dinoseb (DNBP; 2 sec Butyl 4,6 dinitrophenol)	DINOSEB
Silvex (2,4,5 Trichlorophenoxypropionic acid; 2,4,5 TP)	SILVEX
2,4,5 T (2,4,5 Trichlorophenoxyacetic acid)	245T

Organophosphorus Compounds USEPA Method 8141B	GeoTracker Code
Atrazine	ATRAZINE
Chlorpyrifos	CLPYRIFOS
0,0 Diethyl 0 2 pyrazinyl phosphorothioate (Thionazin)	ZINOPHOS
Diazinon	DIAZ
Dimethoate	DIMETHAT
Disulfoton	DISUL
Methyl parathion (Parathion methyl)	PARAM
Parathion	PARAE
Phorate	PHORATE
Simazine	SIMAZINE

MRP ATTACHMENT F—SURROGATES FOR METALLIC CONSTITUENTS OF CONCERN

Surrogates for Metallic Constituents of Concern	GeoTracker Code
pH	PH
Total Dissolved Solids	TDS
Electrical Conductivity	SC
Chloride	CL
Sulfate	S04
Nitrate–Nitrogen	NO3N

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

Waste Discharger Requirements Order R5-2020-XXXX

Waste Discharger Requirements
For
YUBA COUNTY DEPARTMENT OF PUBLIC WORKS
AND
U.S. DEPARTMENT OF INTERIOR, BUREAU OF LAND MANAGEMENT
Ponderosa Landfill
Yuba County

INFORMATION SHEET

The Yuba County Department of Public Works owns the Ponderosa Landfill (Facility), which is located at 17219 Ponderosa Way, approximately one mile southwest of the unincorporated town of Brownsville in Yuba County. The 16-acre Facility is on a 40-acre public lands parcel leased from the United States Bureau of Land Management (BLM), Central California District. Yuba County Department of Public Works, as the closed Facility's owner, and BLM as the landowner are each jointly responsible for compliance with this Order. The 16-acre Facility includes two unlined landfill waste management units (WMU) LF-1 and LF-2, a borrow area, a sedimentation basin, drainage facilities, access roads, and a transfer station.

The landfill units include Landfill 1 (LF- 1), a 3-acre WMU in the northern part of the site, and Landfill 2 (LF-2), a 5-acre WMU in the southern part of the site. LF-1 operated as a trench-fill burn dump from 1967 to 1973 and may have subsequently accepted municipal solid waste (MSW) for a period of time concurrent with LF-2. LF-2 operated from 1973 to 1992, accepting primarily MSW, demolition debris and tires.

The Facility ceased accepting wastes in 1992 upon construction and startup of an onsite transfer station. All municipal refuse has since been transported to the Ostrom Road Landfill in Marysville. Both landfills (LF-1 and LF-2) were closed with a low permeability clay cover in December 1995.

This Order encompasses the post-closure maintenance and corrective action associated with the closed WMUs LF-1 and LF-2.